

**Remarks/Arguments**

Reconsideration of the above-identified application in view of the present amendment is respectfully requested.

By the present amendment, claims 1, 3, 11-13 and 15 have been amended.

Claims 1-2, 9-14 and 19-22 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,847,398 to Shahar et al. Claims 3-8 and 15-18 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

It is respectfully submitted that claims 1-22 are allowable. Specifically, claim 1 recites a method of creating an image of a radiation source including detecting radiation associated with a first location of the radiation source. Data corresponding to the radiation associated with only the first location is processed to provide a first value. The first value is employed to generate a first portion of the image associated with the first location. Radiation associated with a second location of the radiation source is detected. Data corresponding to the radiation associated with only the second location is processed to provide a second value. The second value is employed to generate a second portion of the image associated with the second location. None of the cited prior art describes or suggests a method as set forth in claim 1.

U.S. Patent No. 5,847,398 to Shahar et al. describes a gamma ray imaging system having a collimator plate 16, 50 and an imaging plane 17, 52 constructed of gamma ray detectors. Photons 14, 15, 25 and 26 emitted from an object 11 pass through holes 51 in the plate 50 and impinge on the imaging plane 52. Each through hole 51 projects onto a virtual pixel 54-57 of a real pixel 53. Each real pixel 53

contains several virtual pixels. Accordingly, a plurality of holes 51 projects onto each real pixel 53. The measured signal of each real pixel 53 is the sum of all the signals of the virtual pixels 54-57 which it contains. The imaging plane 52 and the plate 50 are moved relative to each other to make multiple measurements with the holes 51 in different positions relative to the real pixels 53. The imaging plane 52 and the plate 50 are moved relative to each other in such a way that, for each position, a virtual pixel of a real pixel contains the projection of a different collimator hole out of the group of holes of which that real pixel is composed. The measured signal or intensity of each real pixel 53 is known and the signals or intensities of the virtual pixels 54-57 are unknown. After all the shifts of the imaging plane 52 relative to the plate 50 are made and the signals or intensities of each real pixel 53 are measured, the number of independent equations equals the number of virtual pixels or unknowns. The intensities of all the virtual pixels can be derived only after all the measurements are taken, see column 13, lines 29-40.

The Shahar et al. patent does not describe or suggest processing data corresponding to radiation associated with only a first location to provide a first value and employing the first value to generate a first portion of an image associated with the first location. Also, the Shahar et al. patent does not describe or suggest processing data corresponding to radiation associated with only a second location to provide a second value and employing the second value to generate a second portion of the image associated with the second location. Thus, claim 1 is allowable.

Claim 2 recites detecting radiation associated with a first location of the radiation source having a size that is smaller than the resolution of a detector used

for detecting the radiation and detecting radiation associated with a second location of the radiation source having a size that is smaller than the resolution of the detector. None of the cited prior art describes or suggests a method as set forth in claim 2 and including all the limitations of claim 1. Therefore, claim 2 is also allowable.

Claim 3 recites providing a member for preventing radiation of the radiation source from being detected between the radiation source and a detector for detecting radiation having an aperture through which radiation associated with the first and second locations passes. Amended claim 3 does not include the recitation of a third location. Accordingly, claim 3 is not indefinite and is allowable.

Claim 4 recites detecting radiation associated with a first location located substantially adjacent to a second location while preventing detection of radiation associated with the second location and detecting radiation associated with the second location while preventing detection of radiation associated with the first location. None of the cited prior art describes or suggests a method including detecting radiation associated with a first location located substantially adjacent to a second location while preventing detection of radiation associated with the second location and detecting radiation associated with the second location while preventing detection of radiation associated with the first location and including all the limitations of claims 1 and 3. Thus, claim 4 is allowable.

Claim 5 recites placing the member in a first position relative to the detector while detecting radiation associated with the first location and placing the member in a second position relative to the detector while detecting radiation associated with

the second location. None of the cited prior art describes or suggests placing a member in a first position relative to a detector while detecting radiation associated with a first location and placing the member in a second position relative to the detector while detecting radiation associated with a second location and including all the limitations of claims 1 and 3. Therefore, claim 5 is also allowable.

Claim 6 recites moving the member and the detector relative to each other in only one linear direction from the first position to the second position. None of the cited prior art describes or suggests moving a member and a detector relative to each other in only one linear direction from a first position to a second position and including all the limitations of claims 1, 3 and 5. Therefore, claim 6 is allowable.

Claim 7 recites placing the member in a first position relative to the radiation source while detecting radiation associated with the first location and placing the member in a second position relative to the radiation source while detecting radiation associated with the second location. None of the cited prior art describes or suggests placing a member in a first position relative to a radiation source while detecting radiation associated with a first location and placing the member in a second position relative to the radiation source while detecting radiation associated with a second location and including all the limitations of claims 1 and 3. Thus, claim 7 is also allowable.

Claim 8 recites providing the aperture in the member with a size smaller than the resolution of the detector. None of the cited prior art describes or suggests providing an aperture in a member with a size smaller than the resolution of a

detector and including all the limitations of claims 1 and 3. Therefore, claim 8 is allowable.

Claim 9 recites providing a member for preventing radiation associated with a third location of the radiation source from being detected between the radiation source and a detector for detecting radiation having first and second apertures spaced from each other through which radiation associated with the first and second locations passes. None of the cited prior art describes or suggests a method as set forth in claim 9 and including all the limitations of claim 1. Thus, claim 9 is allowable.

Claim 10 recites simultaneously detecting radiation associated with the first and second locations. None of the cited prior art describes or suggests simultaneously detecting radiation associated with first and second locations and including all the limitations as set forth in claims 1 and 9. Therefore, claim 10 is also allowable.

Claim 11 recites summing values of a distribution of data corresponding to the radiation associated with only the first location to provide the first value. The Shahar et al. patent describes solving a number of independent equations with an equal number of virtual pixels or unknowns to provide intensities for the virtual pixels. Accordingly, the Shahar et al. patent does not describe or suggest summing values of a distribution of data corresponding to radiation associated with only a first location to provide a first value. Thus, claim 11 is allowable.

Claim 12 recites summing values of a distribution of data corresponding to the radiation associated with only the second location to provide the second value. The Shahar et al. patent describes solving a number of independent equations with an

equal number of virtual pixels or unknowns to provide intensities for the virtual pixels. Accordingly, the Shahar et al. patent does not describe or suggest summing values of a distribution of data corresponding to radiation associated with only a second location to provide a second value. Thus, claim 12 is allowable.

Claim 13 recites a system for creating an image of a radiation source including an aggregator for aggregating data corresponding to radiation associated with only a first location of the radiation source to provide a first value. The aggregator aggregates data corresponding to radiation associated with only a second location of the radiation source to provide a second value. A mapping system maps the first value to a first portion of the image associated with the first location and maps the second value to a second portion of the image associated with the second location. None of the cited prior art describes or suggests a system as set forth in claim 13.

The Shahar et al. patent describes a system that solves a number of independent equations with an equal number of virtual pixels or unknowns to provide intensities for the virtual pixels. The Shahar et al. patent does not describe or suggest an aggregator for aggregating data corresponding to radiation associated with only a first location of a radiation source to provide a first value. Also, the Shahar et al. patent does not describe or suggest an aggregator that aggregates data corresponding to radiation associated with only a second location of a radiation source to provide a second value. Thus, claim 13 is allowable.

Claim 14 recites a detector for detecting the radiation associated with the first and second locations. None of the cited prior art describes or suggests a detector

for detecting radiation associated with first and second locations and including all the limitations of claim 13. Therefore, claim 14 is also allowable.

Claim 15 recites a member for preventing radiation of the radiation source from being detected between the radiation source and the detector having an aperture through which radiation associated with the first and second locations passes. Amended claim 15 does not recite a third location. Accordingly, claim 15 is not indefinite and is allowable.

Claim 16 recites that the aperture has a size smaller than the resolution of the detector. None of the cited prior art describes or suggests an aperture having a size smaller than the resolution of a detector and including all the limitations of claims 13-15. Therefore, claim 16 is allowable.

Claim 17 recites means for moving the member and the detector relative to each other. None of the cited prior art describes or suggests means for moving a member and a detector relative to each other and including all the limitations of claims 13-15. Thus, claim 17 is allowable.

Claim 18 recites means for moving the member and the radiation source relative to each other. None of the cited prior art describes or suggests means for moving a member and a radiation source relative to each other and including all the limitations of claims 13-15. Therefore, claim 18 is also allowable.

Claim 19 recites a member for preventing radiation associated with a third location of the radiation source from being detected between the radiation source and the detector having first and second apertures spaced from each other through which radiation associated with the first and second locations passes. None of the

cited prior art describes or suggests a member for preventing radiation associated with a third location of a radiation source from being detected between the radiation source and a detector having first and second apertures spaced from each other through which radiation associated with first and second locations passes and including all the limitations of claims 13 and 14. Thus, claim 19 is allowable

Claim 20 recites that each of the first and second apertures has a size smaller than the resolution of the detector. None of the cited prior art describes or suggests first and second apertures having a sized smaller that the resolution of a detector and including all the limitations of claims 13, 14, and 19. Therefore, claim 20 is allowable.

Claim 21 recites means for moving the member and the detector relative to each other. None of the cited prior art describes or suggests means for moving a member and a detector relative to each other and including all the limitations of claims 13, 14, and 19. Therefore, claim 21 is allowable.

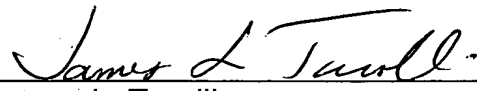
Claim 22 recites means for moving the member and the radiation source relative to each other. None of the cited prior art describes or suggests means for moving a member and a radiation source relative to each other and including all the limitations of claims 13, 14, and 19. Thus, claim 22 is also allowable.



In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

  
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